**Linux Command:**

𝟭. 𝗙𝗶𝗹𝗲 𝗮𝗻𝗱 𝗗𝗶𝗿𝗲𝗰𝘁𝗼𝗿𝘆 𝗠𝗮𝗻𝗮𝗴𝗲𝗺𝗲𝗻𝘁 🗂️  
- 𝚕𝚜: List files and directories in the current location   
- 𝚙𝚠𝚍: Display the current working directory path   
- 𝚌𝚍: Navigate between directories   
- 𝚖𝚔𝚍𝚒𝚛: Create new directories   
- 𝚛𝚖𝚍𝚒𝚛: Remove empty directories   
- 𝚝𝚘𝚞𝚌𝚑: Create new files   
- 𝚌𝚙: Duplicate files or directories   
- 𝚖𝚟: Move or rename files and directories   
- 𝚛𝚖: Delete files or directories  
  
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- 𝚙𝚜: View running processes   
- 𝚝𝚘𝚙: Monitor active processes in real-time   
- 𝚑𝚝𝚘𝚙: Interact with processes using a user-friendly interface   
- 𝚔𝚒𝚕𝚕: Stop a specific process   
- 𝚔𝚒𝚕𝚕𝚊𝚕𝚕: Terminate all occurrences of a process   
- 𝚙𝚜𝚝𝚛𝚎𝚎: Visualize processes in a hierarchical tree structure 🌲  
  
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- 𝚙𝚊𝚜𝚜𝚠𝚍: Update user passwords   
- 𝚞𝚜𝚎𝚛𝚊𝚍𝚍: Create new users   
- 𝚞𝚜𝚎𝚛𝚍𝚎𝚕: Remove users   
- 𝚐𝚛𝚘𝚞𝚙𝚜: List groups a user belongs to   
- 𝚞𝚜𝚎𝚛𝚖𝚘𝚍: Modify user account details   
- 𝚒𝚍: Show user and group information  
- 𝚐𝚛𝚘𝚞𝚙𝚊𝚍𝚍: Create new groups  
- 𝚐𝚛𝚘𝚞𝚙𝚍𝚎𝚕: Remove groups  
  
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- 𝚞𝚗𝚊𝚖𝚎: Display system details   
- 𝚍𝚏: Check disk space usage   
- 𝚍𝚞: Estimate file and directory sizes   
- 𝚏𝚛𝚎𝚎: Show available memory   
- 𝚕𝚜𝚌𝚙𝚞: Provide CPU architecture information   
- 𝚕𝚜𝚑𝚠: List hardware components   
  
🌐 𝟱. 𝗡𝗲𝘁𝘄𝗼𝗿𝗸 𝗖𝗼𝗻𝗳𝗶𝗴𝘂𝗿𝗮𝘁𝗶𝗼𝗻 𝗮𝗻𝗱 𝗠𝗼𝗻𝗶𝘁𝗼𝗿𝗶𝗻𝗴 🕸️  
- 𝚒𝚏𝚌𝚘𝚗𝚏𝚒𝚐: Manage network interfaces   
- 𝚒𝚙: Control routing, devices, and tunnels   
- 𝚙𝚒𝚗𝚐: Verify network connectivity   
- 𝚗𝚎𝚝𝚜𝚝𝚊𝚝: Analyze network statistics   
- 𝚜𝚜: Investigate socket connections   
- 𝚝𝚛𝚊𝚌𝚎𝚛𝚘𝚞𝚝𝚎: Track packet routes and delays   
- 𝚜𝚜𝚑: Establish secure remote connections   
  
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- 𝚊𝚙𝚝-𝚐𝚎𝚝, 𝚊𝚙𝚝: Manage packages on Debian-based systems   
- 𝚢𝚞𝚖, 𝚍𝚗𝚏: Handle packages on RPM-based systems   
- 𝚛𝚙𝚖: Manage RPM packages   
- 𝚍𝚙𝚔𝚐: Manage Debian packages   
  
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- 𝚌𝚊𝚝: Display file contents   
- 𝚕𝚎𝚜𝚜: View files with navigation controls   
- 𝚖𝚘𝚛𝚎: Another file viewing tool   
- 𝚟𝚒𝚖: Use the powerful Vim text editor   
- 𝚐𝚎𝚍𝚒𝚝: Edit files using the GNOME text editor   
- 𝚗𝚊𝚗𝚘: Edit files with the user-friendly Nano editor

sudo apt update -y

sudo install net-tools

Installing apps using apt is as easy as:

sudo apt install app\_name

Installing apps using apt is as easy as:

$ sudo apt install app\_name

Uninstalling an app via apt is also super easy:

$ sudo apt remove app\_name

To upgrade your installed apps, you'll first need to update the app repository:

$ sudo apt update

Once finished, you can update any apps that need updating with the following:

$ sudo apt upgrade

What if you want to update only a single app? No problem.

$ sudo apt update app\_name

Finally, let's say the app you want to install is not available in the Debian repository, but it is available as a .deb download. You can install it manually using dpkg, the system that apt helps manage:

$ sudo dpkg -i app\_name.deb

To install an app:

$ sudo dnf install app\_name

Removing unwanted applications is just as easy.

$ sudo dnf remove app\_name

Updating apps:

$ sudo dnf upgrade –refresh

The dnf (or yum) command is a front-end for the RPM packaging system. If you can't find an app in your software repository but you can find it for download directly from its vendor site, you can use dnf to manually install an .rpm file.

$ sudo dnf install ./app\_name.rpm

**Java install linux**

sudo apt install openjdk-17-jre-headless

Checking for status any software version

Java –version

**To install Jenkins in linux**

**Install Jenkins**

Step - 1

sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \

https://pkg.jenkins.io/debian/jenkins.io-2023.key

Step-2

echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \

https://pkg.jenkins.io/debian binary/ | sudo tee \

/etc/apt/sources.list.d/jenkins.list **>** /dev/null

Step-3

sudo apt-get update

Step-4

sudo apt-get install jenkins

After installation, start and enable the Jenkins service so that it starts automatically upon system boot:

sudo systemctl start Jenkins

sudo systemctl enable jenkins

**Initial Setup:**

* Jenkins runs on port 8080 by default. Access Jenkins through your web browser by entering http://your\_server\_ip:8080. You should see a screen asking for an initial administrator password.
* To retrieve the initial administrator password, use the following command:

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

**docker INSTALL**

##Install in Amazon Ubuntu

#!/bin/bash

sudo apt update -y

sudo apt install apt-transport-https ca-certificates curl software-properties-common -y

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -

sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu bionic stable" -y

sudo apt update -y

apt-cache policy docker-ce -y

sudo apt install docker-ce -y

# sudo systemctl status docker

sudo chmod 777 /var/run/docker.sock

Tools Covered : Jenkins, Sonarqube, Fortify, Maven, Ansible, Docker, Kubernetes, Python with Data Visualisation with HandsOn, Terraform with HandsOn, AWS, Grafana, Prometheus, Shell Scripting with handson, AZURE etc.

Puppet or Chef or Ansible)

Sonar Qube install

docker run -d --name sonarqube -p 9000:9000 -p 9092:9092 sonarqube